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Patent Department
2292 Faraday Avenue
Carlsbad, CA 92008**Facsimile Information**Sender's Name: **Pamela D. Grooms**
Isis Ref. No.: **ISIS-3455**
Date **January 7, 2004**Serial Number: **09/295,463**
Filing Date: **April 13, 1999**
Art Unit: **1631**

Please deliver the following information to:

Name: Commissioner for Patents

Company: USPTO

Fax No.: (703) 872-9306

Re: Revocation of Power of Attorney with New Power of Attorney

We are transmitting 18 page(s), including this cover sheet

Comments:

PLEASE DELIVER THE FOLLOWING ITEMS TO THE FILE:

1. Transmittal
2. Revocation of Power of Attorney with New Power of Attorney
3. Statement Under 37 CFR 3.73(b)
4. Copy of Recorded Assignment

This Fax is from

Name: Pamela Grooms

Fax # (760) 603-3820 Telephone # (760) 603-2415

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Thank you.

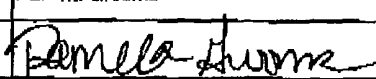
Approved for use through 08/30/2003, OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/295,463	
	Filing Date	April 13, 1999	
	First Named Inventor	Lex M. Cowser	
	Art Unit	1631	
	Examiner Name	Ardin H. Marschel	
Total Number of Pages In This Submission	18	Attorney Docket Number	1818-3455

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input checked="" type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks Revocation of Power of Attorney with Statement Under 37 CFR 3.73(b)		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Herb Boswell
Signature	
Date	1/3/04

CERTIFICATE OF TRANSMISSION/MAILING	
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.	
Typed or printed name	Pamela Grooms
Signature	
Date	1/7/04

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1460, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/82 (08-03)

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**REVOCATION OF POWER OF
ATTORNEY WITH
NEW POWER OF ATTORNEY
AND
CHANGE OF CORRESPONDENCE ADDRESS**

Application Number	09/295,463
Filing Date	April 13, 1999
First Named Inventor	Lex M. Cowser
Art Unit	1631
Examiner Name	Ardin H. Marschel
Attorney Docket Number	ISIS-3455

I hereby revoke all previous powers of attorney given in the above-identified application.

☐ A Power of Attorney is submitted herewith.

OR

☒ I hereby appoint the practitioners associated with the Customer Number:

35807

☒ Please change the correspondence address for the above-identified application to:

☒ The address associated with
Customer Number:

35807

OR

☐ Firm or
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Name B. Lynne Parshall

Signature

Date

1-5-04

Telephone

760 603-2460

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.36. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/96 (08-03)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(b)Applicant/Patent Owner: Isis Pharmaceuticals, Inc.Application No./Patent No.: 09/95,463 Filed/Issue Date: April 13, 1999Entitled: Identification of genetic targets for modulation by oligonucleotides and generation of oligonucleotides for gene modulationIsis Pharmaceuticals, Inc., a Corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or2. ☐ an assignee of less than the entire right, title and interest.The extent (by percentage) of its ownership interest is _____ %
in the patent application/patent identified above by virtue of either:A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 010047, Frame 0295, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

1-5-04

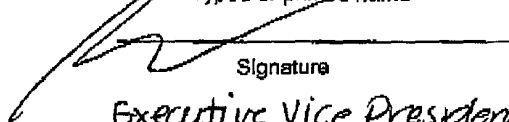
Date

760 603-2460

Telephone number

B. Lynne Parrish

Typed or printed name



Signature

Executive Vice President & CFO

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Washington, D.C. 20231

Woodcock Washburn Kurtz
AUGUST 26, 1999 Mackiewicz & Noll LLP

PTAS

WOODCOCK WASHBURN KURTZ, ET AL.
PAUL K. LEGAARD
ONE LIBERTY PLACE - 46TH FLOOR
1650 MARKET STREET
PHILADELPHIA, PENNSYLVANIA 19103-7301

COPY



101077363A

1515.3455

UNITED STATES PATENT AND TRADEMARK OFFICE
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THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/24/1999

REEL/FRAME: 010047/0285
NUMBER OF PAGES: 13

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

COWSERT, LEX M.

DOC DATE: 05/26/1999

ASSIGNOR:

BAKER, BRENDA F.

DOC DATE: 06/15/1999

ASSIGNOR:

MCNEIL, JOHN

DOC DATE: 06/02/1999

ASSIGNOR:

FREIER, SUSAN M.

DOC DATE: 06/09/1999

ASSIGNOR:

SASMOR, HENRI M.

DOC DATE: 06/11/1999

ASSIGNOR:

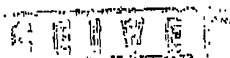
BROOKS, DOUGLAS G.

DOC DATE: 06/03/1999

ASSIGNOR:

OHASHI, CARA

DOC DATE: 05/24/1999



010047/0285 PAGE 2

ASSIGNOR:

WYATT, JACQUELINE R.

DOC DATE: 05/26/1999

ASSIGNOR:

BORCHERS, ALEXANDER H.

DOC DATE: 06/01/1999

ASSIGNOR:

VICKERS, TIMOTHY A.

DOC DATE: 05/27/1999

ASSIGNEE:

ISIS PHARMACEUTICALS, INC.
2292 FARADAY AVENUE
CARLSBAD, CALIFORNIA 92008

SERIAL NUMBER: 09295463

FILING DATE: 04/13/1999

PATENT NUMBER:

ISSUE DATE:

KIMBERLY WHITE, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

06-28-1999



101077363

RECORDATION FORM COVER SHEET
PATENTS ONLYU.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

Patents and Trademarks. Please record the attached original documents or copy

<p>1. Name of conveying party(ies): Lex M. Cowser, Brenda F. Baker, John McNeil, Susan M. Freier, Henri M. Sasmor, Douglas G. Brooks, Cara Ohashi, Jacqueline R. Wyatt, Alexander H. Borchers, Timothy A. Vickers</p> <p>Additional name(s) of conveying party(ies) attached? () YES (X) NO</p> <p>3. Nature of Conveyance: (X) Assignment () Merger () Security Agreement () Change of Name () Other:</p> <p>Execution Date(s): May 26, 1999; June 15, 1999; June 2, 1999; June 9, 1999; June 11, 1999; June 3, 1999; May 24, 1999; May 26, 1999; June 1, 1999; May 27, 1999</p>	<p>2. Name and address of receiving party(ies): Name: ISIS Pharmaceuticals, Inc.</p> <p>Street Address: 2292 Faraday Avenue</p> <p>City: Carlsbad</p> <p>State California ZIP 92008</p> <p>Additional name(s) & address attached? () YES (X) NO</p>		
<p>4. Application number(s) or patent number(s): <u>09/295,463</u> If this document is being filed together with a new application, the execution date of the application is:</p> <table border="0"> <tr> <td>A. Patent Application No.(s)</td> <td>B. Patent No.(s)</td> </tr> </table> <p>Additional numbers attached? () YES (X) NO</p>		A. Patent Application No.(s)	B. Patent No.(s)
A. Patent Application No.(s)	B. Patent No.(s)		
<p>5. Name and address of party to whom correspondence concerning documents should be mailed: Name: Paul K. Legaard Internal Address: WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP One Liberty Place - 46th Floor Philadelphia, Pennsylvania 19103-7301</p> <p>Street Address: WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP One Liberty Place - 46th Floor 1650 Market Street Philadelphia, Pennsylvania 19103-7301</p>	<p>6. Total number of applications and patents involved: One</p> <p>7. Total fee (37 CFR 3.41):.....\$40.00 (X) Enclosed () Authorized to be charged to Deposit Account Number 23-3050</p> <p>8. Please charge any deficiency or credit any overpayment to Deposit Account Number 23-3050</p>		
<p align="center">DO NOT USE THIS SPACE</p>			
<p>9. Statement and signature. <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i></p> <p>Paul K. Legaard/Reg. 38,534 Name of Person Signing/Reg. No.</p> <p align="center"><i>Paul K. Legaard</i> Signature</p> <p align="right">June 21, 1999 Date</p> <p align="right">Total number of pages including cover sheet, attachments, and document: 14</p>			
<p>Mail documents to be recorded with required cover sheet information to:</p> <p align="center">Commissioner of Patents and Trademarks Box Assignments Washington, D.C. 20231</p>			

DOCKET NO.: ISIS-3455

PATENT

ASSIGNMENT

WHEREAS, Lex M. Cowser of Carlsbad, California, Brenda F. Baker of Carlsbad, California, John McNeil of LaJolla, California, Susan M. Freier of San Diego, California, Henri M. Sasmor of ^{Oceanside, CA} Encinitas, California, Douglas G. Brooks, of San Marcos, California, Cara Ohashi of San Francisco, California, Jacqueline R. Wyatt of Encinitas, California, Alexander H. Borchers of Encinitas, California and Timothy A. Vickers of Oceanside, California, have invented a certain invention entitled **IDENTIFICATION OF GENETIC TARGETS FOR MODULATION BY OLIGONUCLEOTIDES AND GENERATION OF OLIGONUCLEOTIDES FOR GENE MODULATION**, for which we have made application for Letters Patent of the United States, said application having been filed on April 13, 1999 and assigned Serial No. 09/295,463; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign

ASSIGNMENT - PAGE 1 OF 12

DOCKET NO.: ISIS-3455

PATENT

to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

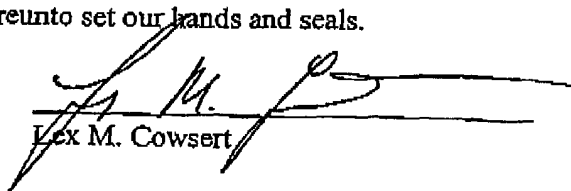
AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

ASSIGNMENT - PAGE 2 OF 12

DOCKET NO.: ISIS-3455

PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 5/26, 1999
Lex M. Cowsert

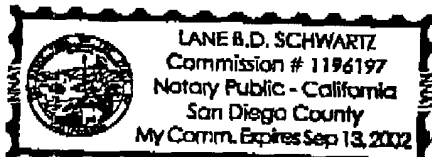
State of California)

)

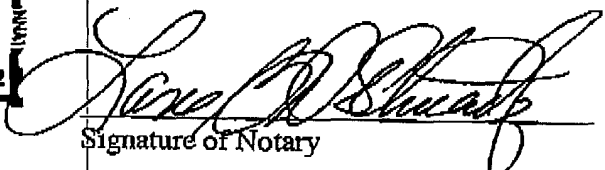
ss.

County of San Diego)

On this 26th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Lex M. Cowsert) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



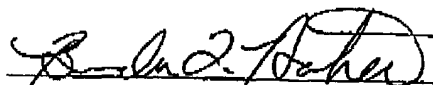
WITNESS my hand and official seal.


Signature of Notary

ASSIGNMENT - PAGE 3 OF 12

DOCKET NO.: ISIS-3455

PATENT

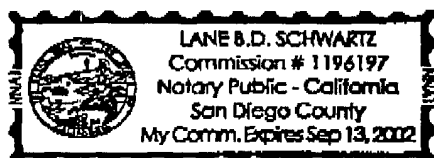
Dated: 6/15/99, 1999
Brenda F. Baker

State of California)

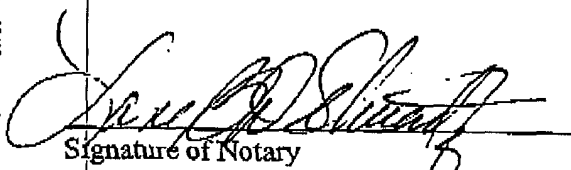
County of San Diego)

ss.

On this 15th day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Brenda F. Baker) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that he/~~she~~ executed the same in his/~~her~~ authorized capacity, and that by his/~~her~~ signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.


Signature of Notary

ASSIGNMENT - PAGE 4 OF 12

DOCKET NO.: ISIS-3455

PATENT

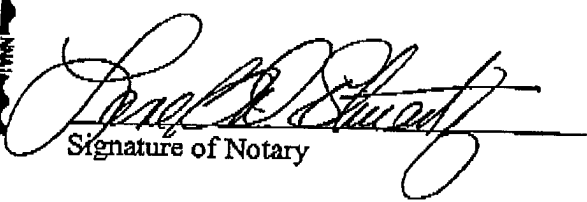
Dated: 6/2/99, 1999
John McNeil

State of California)
)
County of San Diego) ss.

On this 2nd day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (John McNeil) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that ~~he~~/she executed the same in ~~his~~/her authorized capacity, and that by ~~his~~/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.


Signature of Notary

ASSIGNMENT - PAGE 5 OF 12

DOCKET NO.: ISIS-3455

PATENT

Dated: 9-June, 1999

Susan Freier
Susan M. Freier

State of California)
)
County of San Diego) ss.

On this 9th day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Susan M. Freier) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that he/~~she~~ executed the same in his/~~her~~ authorized capacity, and that by his/~~her~~ signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

Signature of Notary

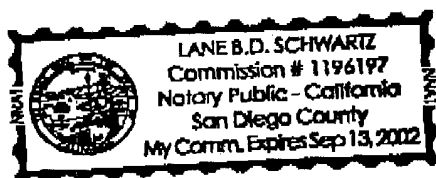
ASSIGNMENT - PAGE 6 OF 12

DOCKET NO.: ISIS-3455

PATENT

Dated: 6-11-99, 1999Henri Sasmor
Henri M. SasmorState of California)
County of San Diego) ss.

On this 11th day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Henri M. Sasmor) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that ~~he~~/she executed the same in ~~his~~/her authorized capacity, and that by ~~his~~/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

Lane B.D. Schwartz
Signature of Notary

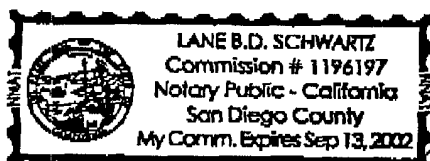
ASSIGNMENT - PAGE 7 OF 12

DOCKET NO.: ISIS-3455

PATENT

Dated: 6/3/99, 1999Douglas G. Brooks
Douglas G. BrooksState of California)
County of San Diego) ss.

On this 3rd day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Douglas G. Brooks) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that ~~he~~ she executed the same in ~~his~~ her authorized capacity, and that by ~~his~~ her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

Lane B.D. Schwartz
Signature of Notary

ASSIGNMENT - PAGE 8 OF 12

DOCKET NO.: ISIS-3455

PATENT

Dated: May 24, 1999Cara Ohashi
Cara OhashiState of California)
County of ~~San Diego~~) ss.
San Mateo

On this 24th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Cara Ohashi) personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

Sunita Rao
Signature of Notary

ASSIGNMENT - PAGE 9 OF 12

DOCKET NO.: ISIS-3455

PATENT

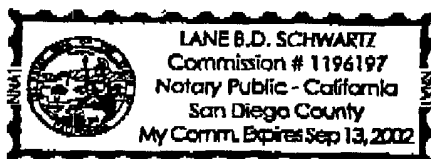
Dated: 5/26, 1999Jacqueline R. Wyatt
Jacqueline R. Wyatt

State of California)

) ss.

County of San Diego)

On this 26th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Jacqueline R. Wyatt) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that he/~~she~~ executed the same in his/~~her~~ authorized capacity, and that by his/~~her~~ signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

Signature of Notary

ASSIGNMENT - PAGE 10 OF 12

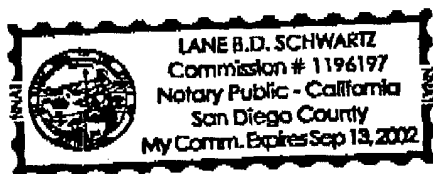
DOCKET NO.: ISIS-3455

PATENT

Dated: JUNE 1, 1999Alexander H. Borchers
Alexander H. Borchers

State of California)
)
County of San Diego) ss.

On this 1st day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Alexander H. Borchers) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that ~~he~~/she executed the same in ~~this~~/her authorized capacity, and that by ~~his~~/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

Lane B.D. Schwartz
Signature of Notary

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DOCKET NO.: ISIS-3455

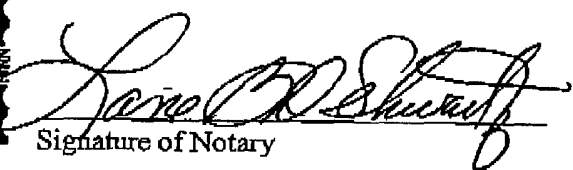
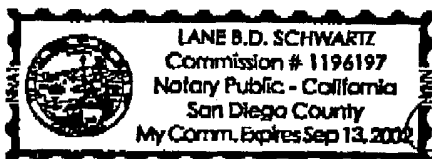
PATENT

Dated: 5/27 1999
Timothy A. Vickers

State of California)
)
County of San Diego) ss.

On this 27th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Timothy A. Vickers) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that ~~he~~/she executed the same in ~~his~~/her authorized capacity, and that by ~~his~~/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.


Signature of Notary

ASSIGNMENT - PAGE 12 OF 12